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CLAIMS:

1. A composition comprising at least one therapeutic agent selected from the group consisting of anthelmintics, vitamins and amino acids, and at least one antistress agent.
2. A composition according to claim 1 wherein the antistress agent is selected from glucocorticoid inhibitors, corticotropin reducing hormone inhibitors, ACTH inhibitors, cholecystokinin inhibitors, benzodiazepines, gamma amino butyric acid potentiators, antiglutaminergics, and serotonergics.
3. A composition according to claim 1 or claim 2 wherein the antistress agent is selected from pyridyl propanones, antiprogestins, benzoylamino dipropylamino oxopentanoics, and amino acid peptides.
4. A composition according to claim 1 wherein the antistress agent is selected from metyrapone, mifepristone, proglumide, astressin, CRH 9-41, diazepam, allopregnanolone, dextromethorpon, zimelidine, and paroxetine.
5. A composition according to claim 4 wherein the antistress agent is selected from metyrapone, mifepristone, proglumide and astressin.
6. A composition according to claim 5 wherein the antistress agent is metyrapone.
7. A composition according to any one of claims 1 to 6 comprising at least two antistress agents, independently selected from the agents according to any one of claims 2 to 6.
8. A composition according to claim 7 wherein the two agents selected are metyrapone and mifepristone, metyrapone and proglumide, or metyrapone and astressin.
9. A composition according to any one of claims 1 to 8 wherein the therapeutic agent is Vitamin C.

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10. A composition according to any one of claims 1 to 9 wherein the therapeutic agent further comprises one or more amino acids selected from valine, leucine and isoleucine.

5 11. A composition according to claim 10 wherein the therapeutic agent comprises valine, leucine and isoleucine.

12. A composition according to any one of claims 1 to 8 wherein the therapeutic agent is an anthelmintic.

10 13. A composition according to claim 12 which further comprises vitamin C.

14. A composition according to claim 13 which further comprises one or more amino acids selected from valine, leucine and isoleucine.

15 15. A composition according to claim 14 which further comprises valine, leucine and isoleucine.

20 16. A composition according to any one of claims 1 to 15 wherein the, or each, antistress agent is present in an amount of from 0.0005 to 1 g/kg of liveweight.

17. A composition according to claim 16 wherein the, or each, antistress agent is present in an amount of from 0.001 to 0.1 g/kg.

25 18. A composition according to claim 17 wherein the, or each, antistress agent is present in an amount of 0.01 g/kg.

19. A composition according to any one of claims 1 to 18 which further comprises a lipid membrane transfer facilitator.

30 20. A composition according to claim 19 wherein the facilitator is pyrolopyrimidine.

35 21. A composition as claimed in any one of claims 1 to 20 which further comprises a performance enhancer.

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22. A composition according to claim 21 wherein the performance enhancer is an antibiotic.

5 23. A composition according to claim 22 wherein the antibiotic is avilamycin.

24. A composition according to claim 22 wherein the performance enhancer is an oligosaccharide.

10 25. A composition according to claim 24 wherein the oligosaccharide is Bio-Mos.

26. A composition according to any one of claims 1 to 25 which is a slow release composition.

5 27. A composition according to any one of claims 1 to 26 which further comprises a nitric oxide promoter.

28. A composition according to claim 27 wherein the promoter is selected from L-arginine diethylamine nitric oxide complex, sodium nitroprusside, and S-nitroso-N-acetylpenicillamine.

29. A composition according to any one of claims 1 to 28 which further comprises at least one pharmaceutically or veterinarily acceptable diluent, excipient, carrier or solubiliser.

25 30. A method for promoting production gain in an animal, the method comprising administering to said animal at least one antistress agent selected from the agents according to any one of claims 2 to 6, or is provided in the form of a composition according to any one of claims 1 to 29.

30 31. A method for enhancing the efficacy of a therapeutic agent selected from the group consisting of anthelmintics, vitamins and amino acids, the method comprising the co-administration of at least one said therapeutic agent and at least one antistress agent to an animal.

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32. A method according to claim 31 wherein the antistress agent is selected from the agents according to any one of claims 2 to 6.

33. A method for promoting production gain in an animal, the method comprising administering at least one therapeutic agent to the animal and reducing the stress experienced by the animal, wherein reduction in stress is achieved by administering at least one antistress agent according to any one of claims 2 to 6.

34. A method for protecting an animal against, or aiding recovery from, stress associated with surgery, injury, illness or trauma, the method comprising administering to said animal at least one antistress agent.

35. A method according to claim 34 wherein the agent is selected from the agents according to any one of claims 2 to 6, or is provided in the form of a composition according to any one of claims 1 to 29, with the proviso that the composition is not an anthelmintic composition.

36. A method according to any one of claims 30 to 35, wherein at least two antistress agents independently selected from the agents according to any one of claims 2 to 6 are administered.

37. A method according to any one of claims 30 to 36 which further comprises administering vitamin C.

38. A method according to any one of claims 30 to 37 which further comprises administering one to three amino acids selected from valine, leucine, and isoleucine.

39. A method according to any one of claims 29 to 38 which further comprises administering a lipid membrane transfer facilitator.

40. A method according to claim 39 wherein the facilitator is pyrrollopyrimidine.

41. A method according to any one of claims 30 to 40 wherein the, or each, amino acid is administered in an amount according to any one of claims 16 to 18.

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42. A composition comprising a therapeutic agent and a nitric oxide promoter.

43. A composition according to claim 42 wherein the promoter is selected from S-nitroso-N-acetylpenicillamine, sodium nitroprusside and L-arginine diethylamine nitric
5 oxide complex.

44. A composition according to claim 42 or claim 43 wherein the therapeutic agent is an anthelmintic.

10 45. A composition as claimed in any one of claims 1 to 29 and 42 to 44 which is a drench.

46. A composition as claimed in claim 44 which is a pour-on formulation.

15 47. A composition as claimed in claim 44 which is formulated for injection.

48. A composition as claimed in claim 44 which is an animal feedstuff.

49. A composition as claimed in claim 44 which is in the form of a bolus.

20 50. Use of an antistress agent in the production of a composition for use in promoting production gain in an animal wherein the composition comprising the antistress agent is an anthelmintic, vitamin or amino acid composition.

25 51. Use according to claim 44 wherein the antistress agent is selected from the agent according to any one of claims 2 to 6.

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